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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor(s): Molisch et al.

Title: RF SIGNAL PROCESSING IN MULTI-ANTENNA SYSTEMS

Serial No.: 10/629,240

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INFORMATION DISCLOSURE STATEMENT

Commissioner for Patents  
PO Box 1450  
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Pursuant to 37 C.F.R. §1.56(a), Applicant hereby cites the following documents (copies enclosed) listed on the attached copy of Form PTO-1449.

PLG 2/93  
IDS.FRM

This Information Disclosure Statement is filed in accordance with the paragraph of 37 CFR §1.97 checked below:

X 1.97(b) This Information Disclosure Statement is filed:

- (1) Within three months of the filing date of a national application; OR
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- (3) Before the mailing of a first Office Action on the merits.

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   1.97(c) This Information Disclosure Statement is filed after the period specified in paragraph (b) above, but before the mailing date of either:

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AND is accompanied by either:

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\_\_\_\_\_ the Certification under 37 CFR  
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\_\_\_\_\_ the fee of \$240.00 under 37 CFR  
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(2) Petition is hereby made under 37 CFR  
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Information Disclosure Statement; AND,

(3) Authorization to charge the petition fee  
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If this Information Disclosure Statement is being filed  
under 37 CFR 1.97(c) or 1.97(d), the undersigned Attorney hereby

certifies that:

— each item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing date of this Statement;

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— no item of information contained in this Information Disclosure Statement was cited in a communication from a foreign patent office in a counterpart foreign application, or to the knowledge of the undersigned Attorney after making reasonable enquiry, was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing date of this Statement.

MERL-1478

Authorization is hereby given to charge the indicated fee(s)  
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Respectfully submitted,

MITSUBISHI ELECTRIC RESEARCH LABORATORIES

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Enclosures

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Form PTO-1449 (modified 2/91)	U.S. DEPT OF COMMERCE Patent and Trademark Office	Attorney Docket Number: MERL-1478	Serial Number: 10/629,240
<b>INFORMATION DISCLOSURE CITATION</b> (Use separate sheets if necessary)		Applicant: Molisch et al.	
		Filing date: July 29, 2003	Group art area:

## U.S. PATENT DOCUMENTS

Examiner Initial	Patent number	Date	Name	Class	Subclass	Filing date if appropriate

## FOREIGN PATENT DOCUMENTS

	Document number	Date	Country	Class	Subclass	Translation	
						YES	NO

## OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

1.	Gore et al., "MIMO Antenna Subset Selection with Space-Time Coding," <i>IEEE Trans. Signal Processing</i> , Vol. 50, No. 10, pp. 2580-2588, October 2002
2.	Bölcskei et al., "Performance of Space-Time Codes in the Presence of Spatial Fading Correlation," <i>Proc. Asilomar Conf. Signals, Syst. Comput.</i> , pp. 687-693, November 2000
3.	Molisch et al., "Reduced-Complexity Transmit/Receive-Diversity Systems", submitted to <i>IEEE Trans. Signal Processing</i> , 2002.
4.	Vaughn and Anderson, <i>Channels, propagation, and antennas for mobile communications</i> , Chapter 9, pp. 629-680, IEE Press, 2003
5.	Molisch et al., "FFT-based Hybrid Antenna Selection Schemes for Spatially Correlated MIMO Channels", to be submitted to <i>IEEE Communication Letter</i>
6.	Asztely, "On Antenna Arrays in Mobile Communication Systems: Fast Fading and GSM Base Station Receiver Algorithms", Tech. Rep. IRS3-SB-9611, Royal Institute of Technology, Stockholm, Sweden, March 1996

Examiner:

Date Considered:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP .609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to the applicant.